

### 4.1.3 Johnson County, Kansas

Johnson County, Kansas has experienced significant urban development in recent years and expects continual development in the future, which has prompted the need to develop a countywide stormwater and floodplain management program. Johnson County, in collaboration with 21 communities, has developed a program that promotes watershed planning techniques, floodplain preservation and open space developments.

To proactively manage increased flow rates due to urbanization, Johnson County is in the process of completing seven watershed floodplain studies. The watershed studies will be used to simulate current and future (i.e. ultimate build-out conditions) hydrologic and hydraulic characteristics, update FEMA FIS maps, identify flooding problems, develop improvements, and plan for future development. The studies will be completed using geographical information system (GIS) data sources and will be easily updated as development occurs in the watershed. The result will be current spatially accurate existing and ultimate floodplains that will form the base for city and/or county floodplain management regulations. Figure 4-3 shows an example of the floodplain maps created as part of this program.

Johnson County recognizes the benefits that riparian buffers provide relating to water quality, stream health, flood protection and streambank stabilization. Currently, the County is in the process of developing stream protection guidelines for the county and the 21 cities within the county. The guidelines recommend a stream buffer width that is flexible to meet the needs of individual communities. The draft stream protection guidelines incorporate a three tier approach to establishing a stream buffer with a minimum width of 100 feet. Each of the three tier buffer widths can vary depending upon the width of the 100-year floodplain, bank stability, and /or preservation of wildlife habitat.

The City of Overland Park, Kansas, a community located within Johnson County, has designated allowable uses within the floodplain limits and along the stream corridor. Streams with drainage areas of 25 acres or more require the delineation of a "stream corridor" with a width based on the contributing drainage area. Development within the stream corridor is restricted to activities that minimize disturbance and impacts to the stream. In addition, Overland Park is using the ultimate build-out floodplain elevation from the Johnson County Watershed Studies to regulate new development.

The City of Lenexa, Kansas, also located in Johnson County, has developed a comprehensive stormwater management program that includes a recently adopted stream setback ordinance and promotes open space development in their "Turning Rain into Recreation" program. The program stresses the conservation of riparian greenways that are areas preserved along streams by requiring larger setback distances than traditional development. The greenways allow trails and other recreational facilities to be built to allow citizens to enjoy the streams and wildlife.